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(54) **CLOTHES HANGER**

(57) A clothes hanger comprising a frame made of thermoplastic material obtained by moulding in a single piece, where said frame comprises an upper open hook (2), a shaped upper rod (3), a horizontal lower rod (5) delimiting a space (100) with said shaped upper rod (3), characterized in that it comprises an elastic connecting

joint (4) connecting a first end (3A) of said shaped upper rod (3) to a first end (5A) of said horizontal lower rod (5), and releasable engaging means (10) between a second end (5B) of said horizontal lower rod (5) and a second end (3B) of said shaped upper rod (3).

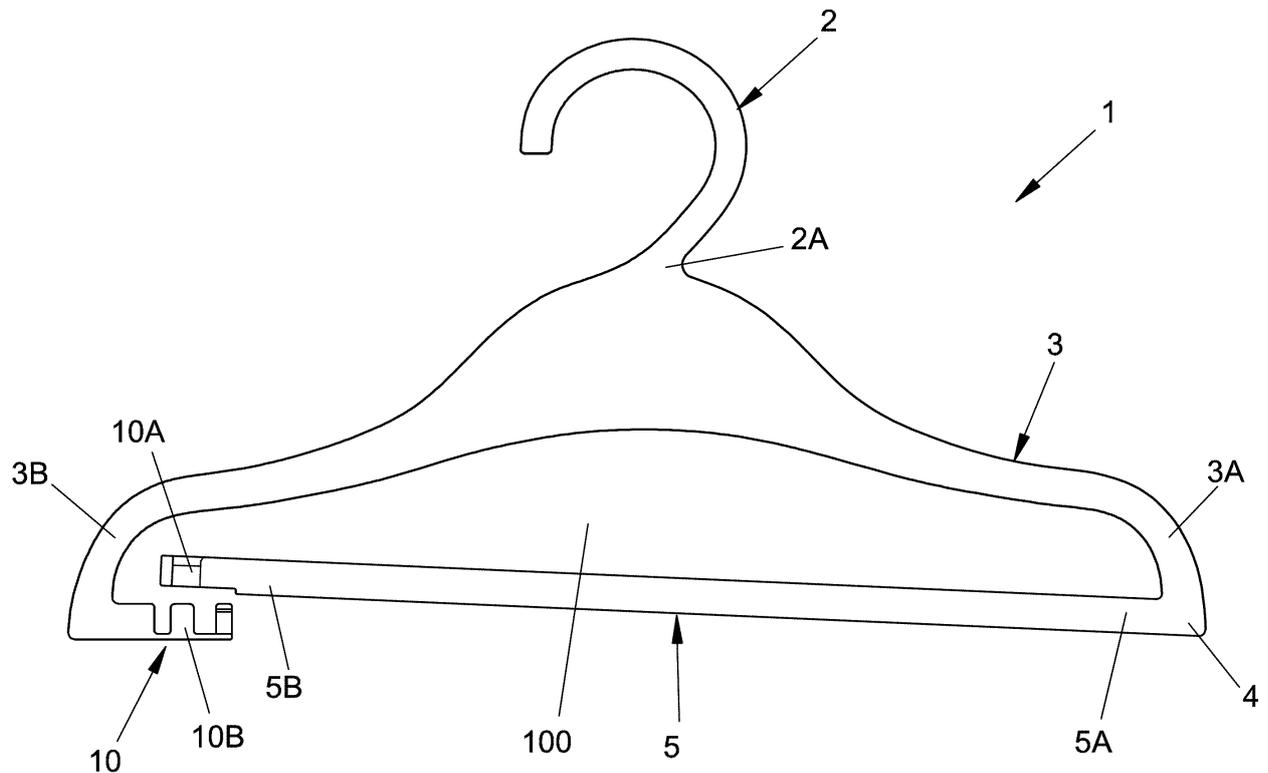


FIG.2

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Description

[0001] The present invention relates to a clothes hanger.

[0002] Clothes hangers that are accessories for supporting clothes in order to store them tidily in wardrobes or in appropriate display units have been known and present for some time on the market.

[0003] It is known that clothes hangers normally consist of an open upper hook that the user engages manually with a horizontal support rod inside the wardrobe or the display unit.

[0004] The hook supports a rod that is usually shaped to simulate the shape of the shoulders to hang garments to be worn on the shoulders easily without creasing, such as jackets, coats, shirts or clothes to be worn on the upper parts of the body. As is known, to the shaped rod a horizontal rectilinear rod is often added below, to hang, together with or separately from the garments to be worn on the shoulders, other more simply shaped garments such as trousers or skirts to be worn generally on the lower parts of the body.

[0005] This horizontal lower rod can then be equipped with further accessories, such as clamps, clips or cords, for further fixing of more specific garments on the clothes hangers.

[0006] The lower horizontal rods are traditionally fixed irreversibly to the upper profiled rod, and the traditional clothes hanger is like a single, also complex piece, although it is made of different shapes and variants.

[0007] Such traditional clothes hangers notoriously result in the garment being hung on the lower horizontal rod having to be inserted between the upper profiled rod and the lower horizontal rod with caution and particular care in order to avoid folds and creases that would compromise correct storage thereof.

[0008] Clothes hangers are further known in which the lower horizontal rod is connected reversibly to the upper rod, thus permitting initial positioning of the garment on the rod and a subsequent connection of the lower rod to the upper rod by more or less complex and reliable mechanical means; these tasks must be performed in reverse order to recover the garment from the clothes hanger.

[0009] Such clothes hangers are, it is known, hardly effective, particularly when they are used for display units of garments for sale because they require dedication and time from the sales staff for positioning and subsequent recovery of the garments, often in an almost continuous manner to display the various garments to the customer, respond to the choices of the customer and store tidily the garments that were not selected for purchase in the display unit for subsequent examination by a new purchaser.

[0010] The systems for fixing the horizontal lower rod to the shaped upper rod must then ensure the impossibility of detachment and/or slipping off that would cause the garment to fall.

[0011] The need is thus felt to simplify the structure of known clothes hangers.

[0012] The task set by the present invention is, therefore, to eliminate the disadvantages complained of in the known art, by creating a clothes hanger that allows garments to be hung on the lower horizontal rod simply, fast and reliably.

[0013] Within the context of this technical task, one object of the invention is to realise a clothes hanger in which the lower horizontal rod is constrained in a releasable manner on the upper profiled rod.

[0014] Another object of the invention is to make a clothes hanger in which the lower horizontal rod is constrained releasably on the upper profiled rod with means that prevents the accidental opening thereof under the weight of the garment.

[0015] Not the least important object of the invention is to make a clothes hanger that is substantially simple, secure and reliable.

[0016] The technical task, as well as these and other objects, according to the present invention are achieved by realising a clothes hanger comprising a frame made of thermoplastic material obtained by moulding in a single piece, where said frame comprises an open upper hook, a shaped upper rod, a horizontal lower rod delimiting a space with the shaped upper rod, an elastic connecting joint connecting a first end of the horizontal lower rod to a first end of the shaped upper rod, and releasable engaging means between a second end of said horizontal lower rod and a second end of said shaped upper rod.

[0017] Other characteristics of the present invention are further defined in the claims herein below.

[0018] Further characteristics and advantages will more fully emerge from the description of a preferred but not exclusive embodiment of a clothes hanger according to the invention, illustrated by way of non-limiting example in the accompanying figures, in which:

figure 1 shows an assembly view of a clothes hanger; figure 2 shows an assembly view of a clothes hanger in which the lower rod is disengaged from the upper rod;

figure 3 shows a detailed particular view of the engaging means of the lower rod with the upper rod engaged

figure 4 shows a detailed particular view of the engaging means of the lower rod with the upper rod disengaged

[0019] With reference to the figures mentioned, a clothes hanger is shown indicated overall with the reference number 1.

[0020] The clothes hanger comprises a frame made of thermoplastic material obtained by moulding in a single piece.

[0021] The frame comprises in particular an upper hook 2 that extends as a single piece above a shaped rigid upper rod 3 to which it is connected with connecting

means 2A.

[0022] A first end 5A of a horizontal lower rod 5 is connected to a first end 3A of the shaped upper rod 3 by an elastic connecting joint 4.

[0023] The elastic connecting joint 4 is defined by a fold in the frame.

[0024] A second end 5B of the horizontal lower rod 5 is connected to a second end 3B of the shaped upper rod 3 by releasable engaging means 10.

[0025] The cross section of the lower horizontal rod 5 has a vertical dimension that is greater than the horizontal dimension.

[0026] The shaped upper rod 3 and the horizontal lower rod 5 delimit a space 100: suitably, the elastic connecting joint 4 is configured to permit the bending of the horizontal lower rod 5 towards the inside of the space 100.

[0027] Advantageously, the releasable engaging means 10 is configured in two conjugate shape elements 10A and 10B; the conjugate shape element 10A is configured at the end 5B of the horizontal lower rod 5; the conjugate shape element 10B is configured at the end 3B of the shaped upper rod 3.

[0028] The conjugate shape element 10B comprises at least one, preferably two, elastic teeth 11 B and 12 B extending orthogonally upwards from opposite sides of a lower horizontal support shelf 13B.

[0029] Suitably, this at least one, preferably two, elastic teeth 11 B and 12 B extend in height as far as the upper line of the end 3B of the shaped upper rod 3.

[0030] The conjugate shape element 10A comprises at least one, preferably two snap seats 11 A and 12 A extending orthogonally downwards from opposite edges of an upper horizontal interlocking shelf 13 A.

[0031] Suitably, these at least one, preferably two, snap seats 11 A and 12 A have a shape and dimension matching that of the two elastic teeth 11 B and 12 B.

[0032] The operation of the clothes hanger according to the invention appears to be clear from the description and illustration, and in particular, it is carried out substantially as indicated herein below.

[0033] The releasable engaging means 10 as configured above engages the horizontal lower rod 5 in the downward vertical movement and in the side movements; when engaged, they thus prevent a lateral displacement or downward opening disengagement of the horizontal lower rod 5, thus ensuring reliable storage of the supported garments.

[0034] Also the particular inertia on the vertical plane of the horizontal lower rod 5 ensured by the section having a greater vertical dimension than the horizontal version ensures greater resistance to bending of the rod subjected to vertical loads of the stored garments, avoiding undesired creasing thereof.

[0035] When necessary, for new storage or removal of the garments stored on the horizontal lower rod 5, through suitable upward manual pressure, the releasable engaging means 10 is disengaged and the horizontal

lower rod 5 is free to rotate around the elastic connecting joint 4 to the inside of the space 100, easily permitting the operations of storage or removal by the user.

[0036] With a subsequent manual operation, the horizontal lower rod 5, by rotating downwards around the elastic connecting joint 4, is returned to engagement of the releasable engaging means 10.

[0037] Through a suitable downward pressure operation, the snap seats 11 A and 12 A at the end 5B of the horizontal lower rod 5 obtain the relative engagement with the conjugate shapes of the elastic teeth 11B and 12B at the end 3B of the shaped upper rod 3, and the support of the end 5B on the lower horizontal shelf 13B: the horizontal lower rod 5 is thus engaged releasably with the shaped upper rod 3 of the clothes hanger 1.

[0038] It has in fact been established how a clothes hanger according to the invention is particularly advantageous for enabling garments to be hung on the lower horizontal rod in a simple, secure, fast and reliable manner.

[0039] Variants on the embodiment preferred described above are clearly possible, all falling within the scope of protection of the invention; by way of non-limiting example, the section of the frame can be flat, or the upper rod can be shaped three-dimensionally, or the frame can have perimeter lightening grooves.

[0040] The materials used, as well as the dimensions, can be any according to the needs and the state of the art.

Claims

1. A clothes hanger comprising a frame made of thermoplastic material obtained by moulding in a single piece, where said frame comprises an open upper hook (2), a shaped upper rod (3), a horizontal lower rod (5) delimiting a space (100) with said shaped upper rod (3), **characterized in that** it comprises an elastic connecting joint (4) connecting a first end (3A) of said shaped upper rod (3) to a first end (5A) of said horizontal lower rod (5), and releasable engaging means (10) between a second end (5B) of said horizontal lower rod (5) and a second end (3B) of said shaped upper rod (3).
2. The clothes hanger according to claim 1, **characterized in that** said elastic connecting joint (4) is configured to bend said horizontal lower rod (5) towards the inside of said space (100).
3. The clothes hanger according to any preceding claim, **characterized in that** said releasable engaging means (10) comprises at least one elastic tooth (11B) that is hookable in a corresponding snap seat (11 A).
4. The clothes hanger according to any preceding claim, **characterized in that** said releasable engag-

ing means (10) comprises a lower horizontal shelf (13B) providing support from above for said second end (5B) of said horizontal lower rod (5).

5. The clothes hanger according to the preceding claim, **characterized in that** said lower horizontal shelf (13B) supports said at least one elastic tooth (11B) and an upper horizontal interlocking shelf (13 A) supports said corresponding at least one snap seat (11A). 5
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6. The clothes hanger according to the preceding claim, **characterized in that** it comprises at least two of said elastic teeth (11B) and (12B) that extend orthogonally upwards from opposite sides of said lower horizontal support shelf (13B). 15
7. The clothes hanger according to the preceding claim, **characterized in that** said second end (5B) of said horizontal lower rod (5) has an upper horizontal interlocking shelf (13 A) that has at least two of said snap seats (11 A) and (12 A) extending orthogonally downwards from opposite edges for said at least two elastic teeth (11B) and (12B). 20
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8. The clothes hanger according to any preceding claim, **characterized in that** said joint (4) is defined by a fold of said frame.
9. The clothes hanger according to any preceding claim, **characterized in that** said frame is flat. 30
10. Clothes hanger according to any preceding claim, **characterized in that** the cross section of said lower horizontal rod (5) has a greater vertical dimension than the horizontal dimension. 35
11. The clothes hanger according to any preceding claim, **characterized by** providing said open upper hook (2) which extends in a single piece above said shaped upper rod (3). 40
12. The clothes hanger according to any preceding claim, **characterized in that** said frame has a perimeter lightening groove. 45

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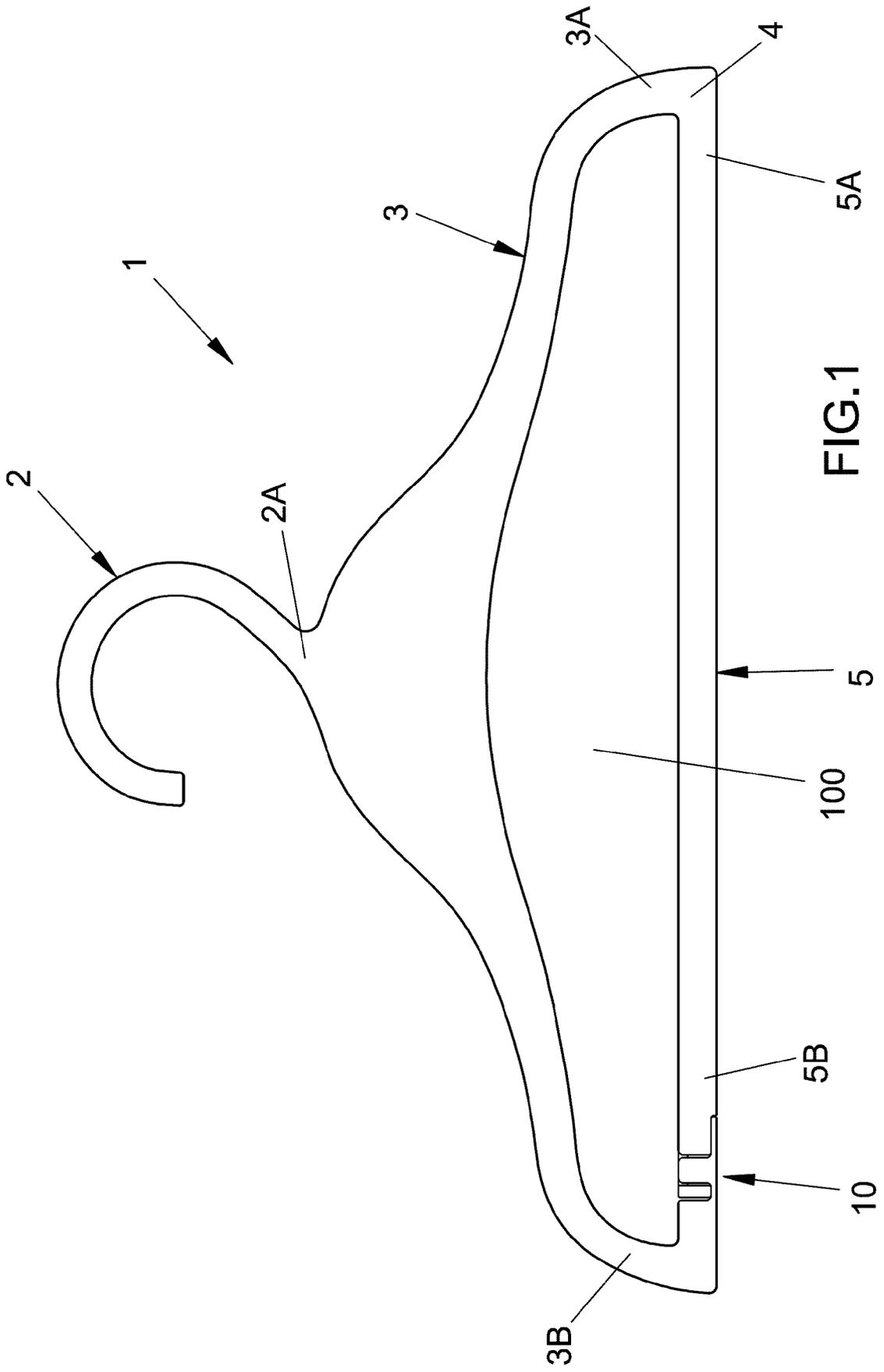


FIG.1

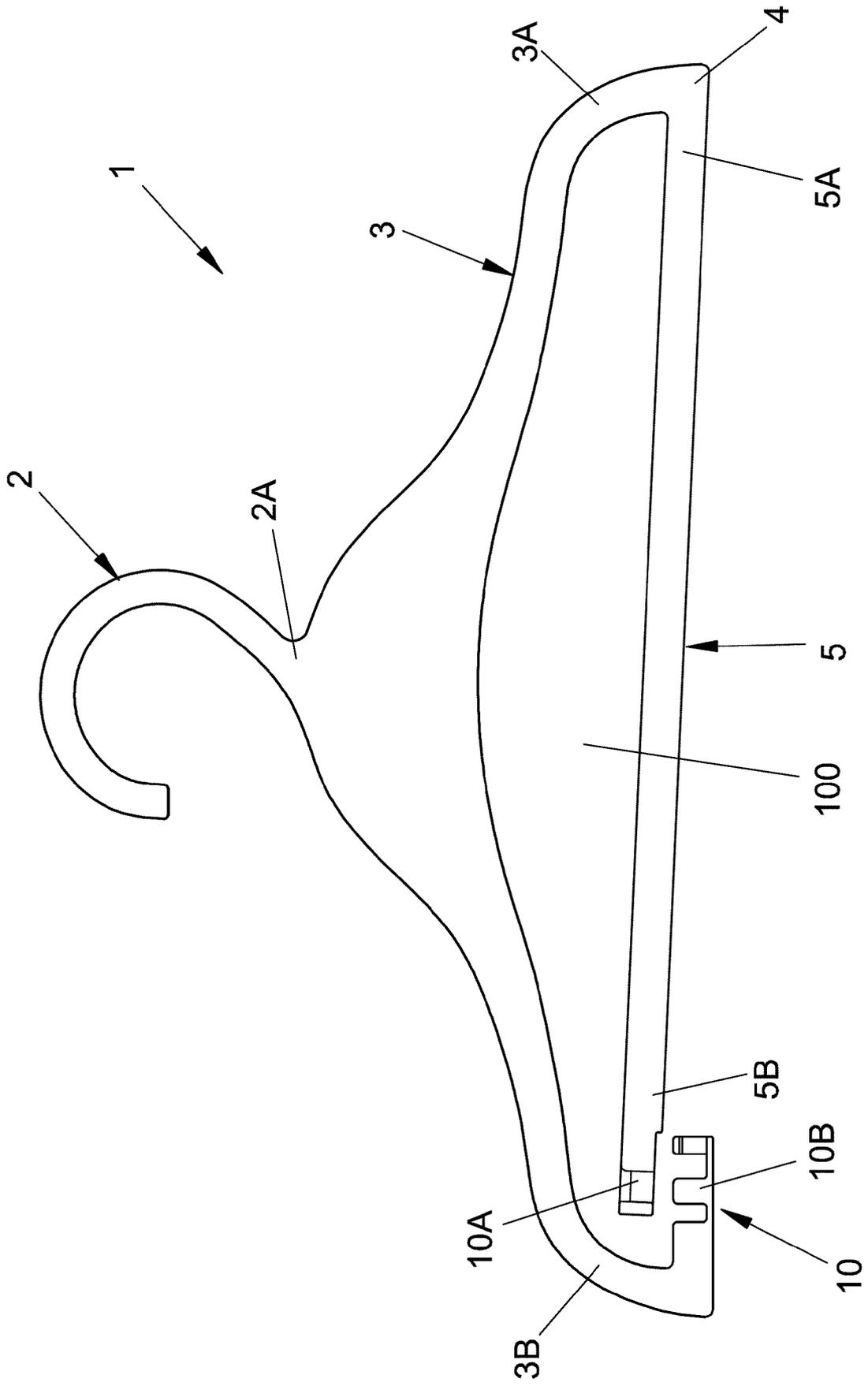


FIG.2

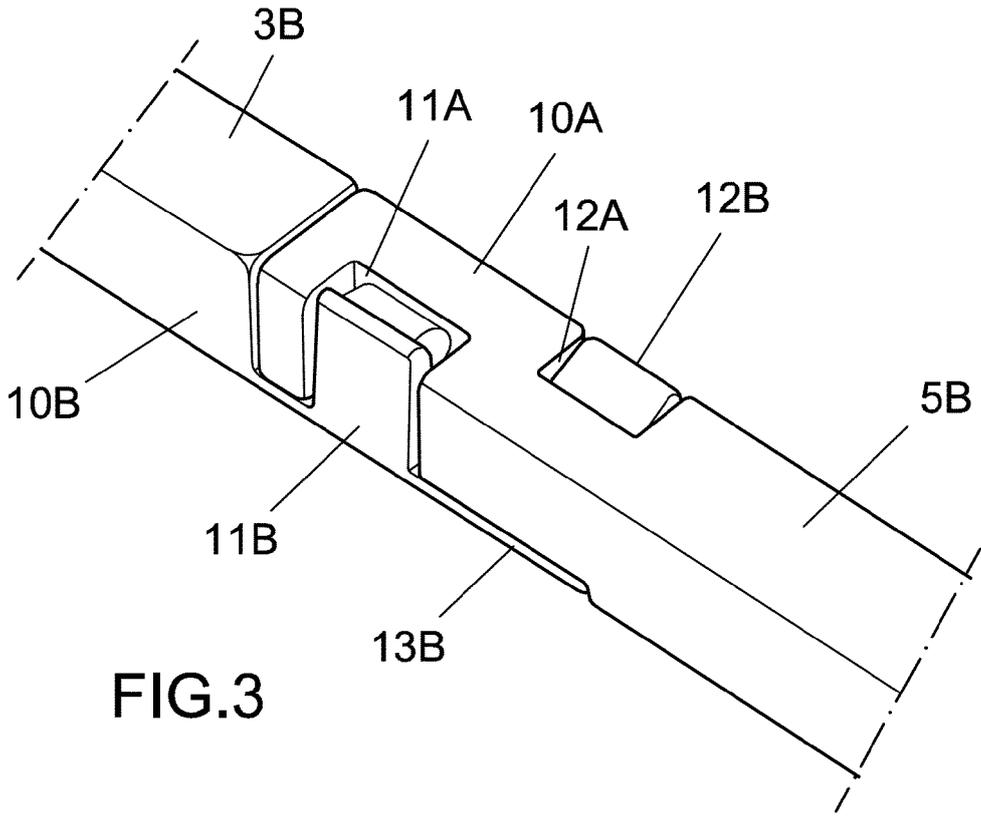


FIG.3

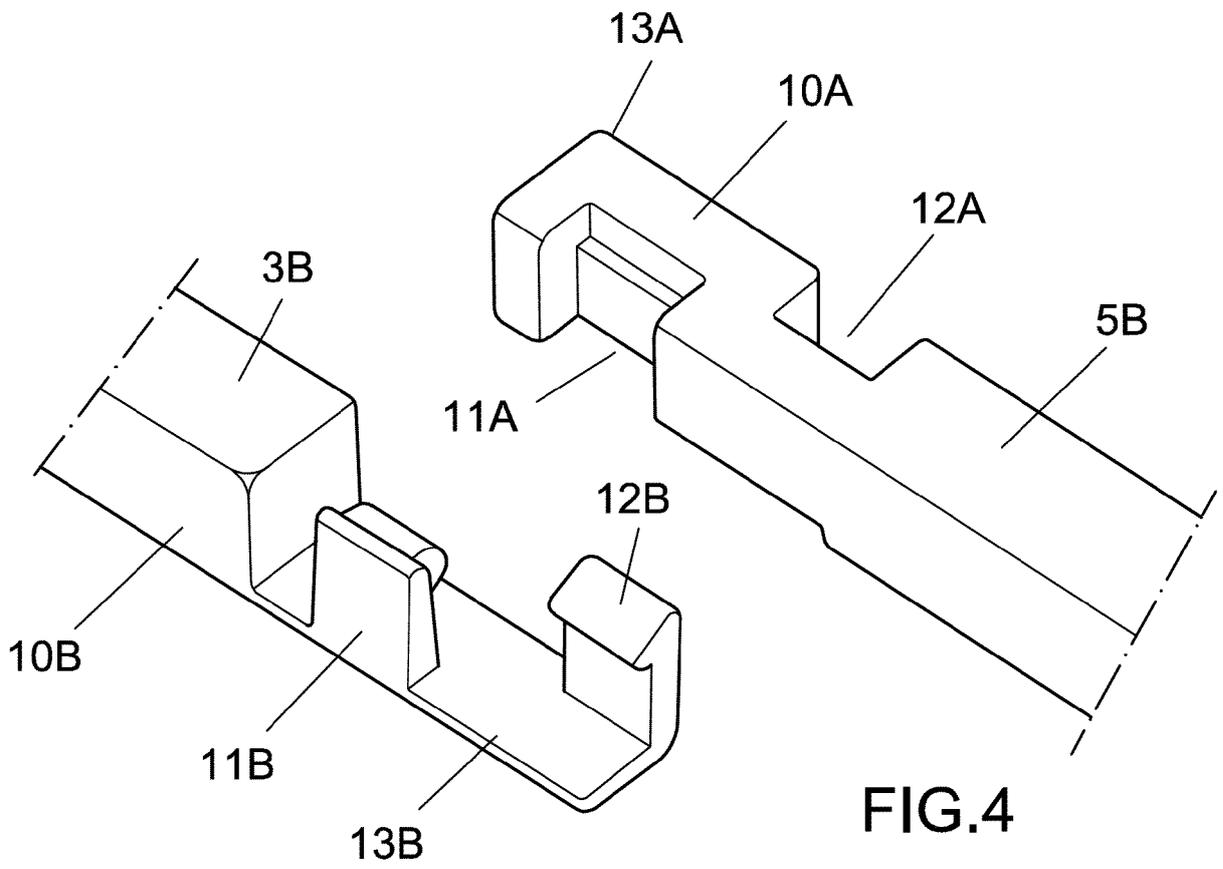


FIG.4



EUROPEAN SEARCH REPORT

Application Number
EP 20 20 3246

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 3 067 917 A (RELLER LOUIS S ET AL) 11 December 1962 (1962-12-11) * column 1, lines 40-45 - column 3, lines 22-45; figures 1-4 * -----	1-12	INV. A47G25/34 A47G25/36 A47G25/28
X	DE 20 61 268 A1 (AUSTERMANN HEINZ) 22 June 1972 (1972-06-22) * page 5, paragraph 2; figures 1-8 * -----	1-4,8-12	
X	US 2012/228341 A1 (FERRARO BRANDON R [US] ET AL) 13 September 2012 (2012-09-13) * paragraphs [0033], [0036], [0040]; figures 1,2,10,11 * -----	1-4,8-12	
			TECHNICAL FIELDS SEARCHED (IPC)
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 9 March 2021	Examiner Longo dit Operti, T
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 20 20 3246

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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09-03-2021

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82